DONALDSONCOAL
Part of the Yancoal Australia Group

Abel Mine
Subsidence Management Plan
End of Year Report 2012

31 March 2013

Approved by

Tony Sutherland
Technical Services Manager- UG Operations
Donaldson Coal

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TABLES

ATTACHMENTS

1 INTRODUCTION

This Subsidence Management Plan End of Year Report fulfils the requirements of Condition 19 of the Abel Subsidence Management Plan (SMP) Approval Conditions for Area 1 and Condition 18 of the Approval Conditions for Area 2.

A summary of monitoring results for the period January to December 2012 is presented in this report. Pillar extraction was completed in Panels 6, 7, 8, 15, 20, Tailgate Headings and commenced in East Mains, East Install Headings and Panel 21 during this reporting period.

Subsidence surveys, photographic monitoring and visual inspections were conducted over all pillar extraction areas in accordance with the approved Subsidence Monitoring Programs with the exception of a period where access was unable to be obtained, with environmental monitoring conducted in accordance with the approved Environmental Management Plan.

2 PURPOSE AND SCOPE

The purpose of this document is to comply with the relevant approval condition which states:

"The Leaseholder shall prepare an end of year report. This report shall be submitted to the Director Environmental Sustainability, within the first three months of the subsequent year. The end of year report must:

(a) include a summary of the subsidence and environmental results for the year;

(b) include an analysis of these monitoring results against the relevant;

- *impact assessment criteria;*
- *monitoring results from previous years; and*
- *predictions in the SMP.*

(c) identify any trends in the monitoring results over the life of the activity; and

(d) describe what actions were taken to ensure adequate management of any potential subsidence impacts due to mining."

3 SMP PILLAR EXTRACTION DURING REPORTING PERIOD

Area 1

SMP Approval was granted for Abel Area 1 (Panels 1 to 14 inclusive plus East Mains) on 27 May 2010. Pillar extraction has been conducted in the following order during 2012, completion of Panels 6, 7, and 8, and has commenced in East Mains. A Variation application for SMP Area 1 was submitted on the 8 August 2011 and was approved on the 29 September 2011. This variation was related to Panels 9 – 13 being removed from the SMP approved area.

Area 2

SMP Approval was granted for Abel Area 2 (Panels 14 – 26) on 7 December 2011. A variation was submitted on 19 December 2011 relating to the removal of Panel 14 and the shortening of Panels 15 – 19. The second variation submitted, relating to partial pillar extraction Panel 20 – 22, was approved on the 3 September 2012. A third variation submitted, relating to Panels 19 & 19A, was approved on the 21 December 2012. Pillar extraction was conducted in the following order during

2012, Panel 15, Tailgate Heading and Panel 20. Extraction also commenced in Panel 21 and East Install Headings during this period.

Table 1 below provides approval, plus mining commencement and completion dates for the Panels extracted since approval was granted.

Table 1 – Approval and Extraction Dates

Panel	Approval Date	Extraction Commenced	Extraction Completed
Panel 1	27 May 2010	12 July 2010	22 December 2010
Panel 2	27 May 2010	17 September 2010	12 November 2010
Panel 3	27 May 2010	7 January 2011	19 April 2011
Panel 4	27 May 2010	14 March 2011	20 July 2011
Panel 5	27 May 2010	30 May 2011	24 September 2011
Panel 6	27 May 2010	22 September 2011	2 February 2012
Panel 7	27 May 2010	19 November 2011	31 May 2012
Panel 8	7 December 2011	31 March 2012	17 July 2012
Panel 15	7 December 2011	20 February 2012	26 March 2012
Panel 20	3 September 2012	12 September 2012	3 December 2012
Panel 21	3 September 2012	8 November 2012	
East Mains	27 May 2010	18 July 2012	
East Install Headings	7 December 2011	4 December 2012	
Tailgate Headings	7 December 2011	5 June 2012	10 September 2012

4 SUBSIDENCE AND ENVIRONMENTAL PROGRAMS AND MANAGEMENT PLANS

Subsidence Monitoring Programs consisting of a combination of subsidence surveys, visual inspections and photographic monitoring have been developed in consultation with and approved by the Principal Subsidence Engineer, DTIRIS for all Panels extracted to date. In addition underground monitoring programs have been developed and approved for the partial pillar extraction Panels 20 – 21. All required subsidence monitoring lines have been installed and subsidence surveys completed in accordance with the agreed Subsidence Monitoring Programs with the exception of a period where access was unable to be obtained.

Management Plans have been prepared for the following infrastructure outlined in **Table 2** and have been approved by the Director of Mine Safety Operations.

Table 2 – Approved Management Plans

Infrastructure Owners	Management Plans	Approved
Ausgrid	Ausgrid Powerline Management Plan SMP Area 2 – Tailgate Headings	21 June 2012

Infrastructure Owners	Management Plans	Approved
Ausgrid	Ausgrid Powerline Management Plan SMP Area 2 - Panels 20 - 22	2 November 2012
	Ausgrid Powerline Management Plan SMP Area 1 – East Mains	23 October 2012
Telstra	Telstra Corporation Management Plan SMP Area 2	21 December 2012
TransGrid	TransGrid Towers Management Plan SMP Area 1	22 March 2012
	TransGrid Towers Management Plan SMP Area 2	16 January 2013
Cessnock City Council	Blackhill Road and Taylors Road Management Plan SMP Area 2	7 December 2012
Hunter Water	Hunter Water Corporation Water Pipeline Management Plan SMP Area 2	21 June 2012
	Hunter Water Corporation Water Pipeline Management Plan SMP Area 1 – East Mains	12 December 2012

5 SUMMARY OF SUBSIDENCE IMPACTS

Visual inspections and photographic monitoring of various surface features were conducted throughout the year.

Survey results for subsidence, tilt and strain during the year were general in accordance with predicted levels.

5.1 Impacts on General Surface and Roads / Tracks

Surface cracking has occurred generally as predicted at the surface above Panels 6, 7, 8, 15, 20, 21, Tailgate Headings and East Install Headings, East Mains in both the vegetated areas and sealed access road and access tracks.

Remedial works have been carried out in consultation and agreement with the landholders

5.2 Impacts on Hunter Water Corporation Waterline

Subsidence Impacts

Impacts were within predictions and infrastructure remained in a safe and serviceable condition.

5.3 Impacts on Ausgrid Powerlines

Subsidence Impacts

Impacts were within predictions and infrastructure remained in a safe and serviceable condition.

5.4 Impacts on TransGrid Transmission Towers

Subsidence Impacts

Impacts were within predictions and infrastructure remained in a safe and serviceable condition.

5.5 Notification Under SMP Approval Conditions

No exceedances requiring notification of cracking has been required during this period.

There have been no other observed and/or reported subsidence impacts, incidents, service difficulties, community complaints, or any other relevant information.

Post Mining surveys have revealed one minor exceedance for strain in Panel 6, and tilt exceedances in Panels 5, 6, 7 & 15. These exceedances are highlighted in **Table 4** and are all located at the start positions of the respective panels.

6 SUBSIDENCE SURVEY SUMMARY AND ANALYSIS

A record of all completed subsidence surveys is shown in **Table 3**.

Additional surveys have also been conducted on areas within the Catholic Diocese of Maitland – Newcastle land.

A summary of subsidence, strain and tilt results are detailed in **Table 4** with comparison to the SMP predictions.

All required subsidence monitoring lines have been installed and all pre-mining subsidence surveys completed in accordance with the agreed Subsidence Monitoring Programs.

Table 3 – Subsidence Monitoring Survey Dates

Survey / Monitoring Line	Survey / Monitoring Description	Pre – Mining Survey	Survey / Inspection / Monitoring Dates	Post – Mining
Panel 1	*Subsidence survey*	Installation and pre-mining survey 7/07/2010	Weekly Surveys	*11/02/2011* *24/06/2011*
Panel 2	*Subsidence Survey*			*22/12/2010* *21/06/2011*
Panel 3	*Subsidence survey*	*23/12/2010*	Weekly Surveys	*10/06/2011* *25/10/2011* *9/05/2011*
	Visual inspection		Weekly Surveys	
	Photographic monitoring	*23/12/2010*		
Panel 4	*Subsidence survey*	*4/03/2011*	Weekly Surveys	*24/08/2011* *9/05/2011*
	Visual inspection		Weekly Surveys	
	Photographic monitoring	*4/03/2011*		
Panel 5	*Subsidence survey*	*27/05/2011*		*4/11/2011* *2/05/2012*
	Visual inspection		Weekly Surveys	
	Photographic monitoring	*27/05/2011*		
Panel 6	*Subsidence survey*	*14/09/2011*		*1/05/2012*
	Visual inspection		Weekly Surveys	
	Photographic monitoring	*14/09/2011*		
Panel 7	*Subsidence survey*	*8/02/2012*		*2/08/2012*

Survey / Monitoring Line	Survey / Monitoring Description	Pre – Mining Survey	Survey / Inspection / Monitoring Dates	Post – Mining
	Visual inspection		Weekly Surveys	
	Photographic monitoring	*8/02/2012*		
Panel 8	*Subsidence survey*	*13/02/2012*		*31/10/2012*
	Visual inspection		Weekly Surveys	
	Photographic monitoring	*13/02/2012*		
Panel 15	*Subsidence survey*	*9/02/2012*		*27/04/2012*
	Visual inspection		Weekly Surveys	
	Photographic monitoring	*9/02/2012*		
Panel 20	*Subsidence survey*	*29/08/2012*		
	Visual inspection		Weekly Surveys	
	Photographic monitoring	*29/08/2012*		
Panel 21	*Subsidence survey*	*7/11/2012*		
	Visual inspection		Weekly Surveys	
	Photographic monitoring	*7/11/2012*		
East Install Headings	*Subsidence survey*	*14/11/2012*		
	Visual inspection		Weekly Surveys	
	Photographic monitoring	*14/11/2012*		
	Subsidence survey	*18/05/2012*		*19/12/2012*
	Visual inspection		Weekly Surveys	

Survey / Monitoring Line	Survey / Monitoring Description	Pre – Mining Survey	Survey / Inspection / Monitoring Dates	Post – Mining
Tailgate Headings	*Photographic monitoring*	*18/05/2012*		
East Mains Headings	*Subsidence survey*	*9/07/2012*		
	Visual inspection		Weekly Surveys	
	Photographic monitoring	*9/07/2012*		
Hunter Water Corporation pipeline	*Subsidence survey*	*7/07/2010 over P1* *8/09/2010 over P2*	Weekly Surveys	*11/02/2011 & 24/06/2011 Over P1* *22/12/2010 & 21/06/2011 Over P2*
	Visual inspection		Weekly Surveys	
	Photographic monitoring			
Ausgrid Power Poles	*Subsidence survey*	Same date as Panel surveys	Weekly Surveys	
	Visual inspection		Weekly Surveys	
	Photographic monitoring	Same date as Panel surveys		
TransGrid Transmission Towers	*Subsidence survey*	*28/03/2012*	Weekly Surveys	
	Visual inspection		Daily Surveys	
	Photographic monitoring	*28/03/2012*		

Table 4 – Comparison of Subsidence Monitoring Results to SMP Predictions

PANEL 1 (W = 120 m; T = 2.35 - 3.0m)			
>75m Cover	**Predicted**	**Final Measured**	**Comment**
Subsidence	0.95 - 1.25m	0.72 - 1.228m	Measured subsidence < predictions
Tensile Strain	10 - 18 mm/m	4 - 12 mm/m (18 mm/m)	Measured tensile strains < predictions.
Compressive Strain	13 - 23 mm/m	5 - 14 mm/m	Measured compressive strains < predictions
Tilt	22 - 40 mm/m	22 - **46** mm/m	Measured tilts < predictions. One exceedance of 15%.
Other		Cracked Joint to Hunter Water Pipeline Repaired 11kv Power Line	All necessary repairs have been carried out.

PANEL 2 (W= 150m ; T = 2.5 m)			
< 75m Cover	**Predicted**	**Final Measured**	**Comment**
Subsidence	1.30 - 1.38m	0.977 - 1.041 m	Measured subsidence < predictions
Tensile Strain	18 - 31 mm/m	4 - 6 mm/m (5 mm/m)	Measured tensile strains < predictions
Compressive Strain	23 - 40 mm/m	4 - 7 mm/m	Measured compressive strains < predictions
Tilt	40 - 67 mm/m	22 - 32 mm/m	Measured tilts < predictions
Other			
>75m Cover	**Predicted**	**Final Measured**	**Comment**
Subsidence	1.20 - 1.32m	0.94 - 0.966m	Measured subsidence < predictions
Tensile Strain	13 - 20 mm/m	9 mm/m (15 mm/m)	Measured tensile strains < predictions
Compressive Strain	17 - 25 mm/m	6 mm/m	Measured compressive strains < predictions
Tilt	30 - 45 mm/m	27 mm/m	Measured tilts < predictions
Other			

PANEL 3 (W=160.5 m; T = 2.5 m)			
< 75m Cover	**Predicted**	**Final Measured**	**Comment**
Subsidence	1.33 - 1.34 m	1.003 m	Measured subsidence < predictions
Tensile Strain	19 - 31 mm/m	8 - 9 mm/m (26 mm/m)	Measured tensile strains < predictions
Compressive Strain	24 - 40 mm/m	5 - 7 mm/m	Measured compressive strains < predictions
Tilt	42 - 67 mm/m	28 - 39 mm/m	Measured tilts < predictions
Other			
>75m Cover	**Predicted**	**Final Measured**	**Comment**
Subsidence	1.26 - 1.27 m	0.884 - 0.982 m	Measured subsidence < predictions
Tensile Strain	14 - 21mm/m	8 mm/m (10 mm/m)	Measured tensile strains < predictions
Compressive Strain	18 - 27 mm/m	4 mm/m	Measured compressive strains < predictions
Tilt	33 - 49 mm/m	30 mm/m	Measured tilts < predictions
Other			

PANEL 4 (W= 160.5 m; T = 2.5 m)			
< 75m Cover	**Predicted**	**Final Measured**	**Comment**
Subsidence	1.27-1.29m	1.065m	Measured subsidence < predictions
Tensile Strain	19 - 31 mm/m	6 - 10 mm/m (37.5 mm/m)	Measured tensile strains < predictions with 1 exceedance of 20% at clay cap.
Compressive Strain	24 - 40 mm/m	6 - 18 mm/m	Measured compressive strains < predictions
Tilt	42 - 67 mm/m	36 - 60 mm/m	Measured tilts < predictions
Other			
>75m Cover	**Predicted**	**Final Measured**	**Comment**
Subsidence	1.29 - 1.32m	1.054 m	Measured subsidence < predictions
Tensile Strain	14 - 21mm/m	5 mm/m	Measured tensile strains < predictions
Compressive Strain	18 - 27 mm/m	5 mm/m	Measured compressive strains < predictions
Tilt	42 - 67 mm/m	25 - 36 mm/m	Measured tilts < predictions
Other			

PANEL 5 (W= 160.5 m; T = 2.5 m)			
< 75m Cover	**Predicted**	**Final Measured**	**Comment**
Subsidence	1.27-1.43	1.154m	Measured subsidence < predictions
Tensile Strain	14 - 15 mm/m	10 mm/m	Measured tensile strains < predictions
Compressive Strain	15 - 19 mm/m	4 mm/m	Measured compressive strains < predictions
Tilt	41 - 46 mm/m	68 mm/m	Measured tilts < predictions with 1 minor exceedance
Other			
>75m Cover	**Predicted**	**Final Measured**	**Comment**
Subsidence	1.42 - 1.43m	1.002 m	Measured subsidence < predictions
Tensile Strain	11 - 15 mm/m	2 mm/m	Measured tensile strains < predictions
Compressive Strain	15 - 18 mm/m	13 mm/m	Measured compressive strains < predictions
Tilt	38 - 46 mm/m	29.8 mm/m	Measured tilts < predictions
Other			

PANEL 6 (W= 160.5 m; T = 2.5 m)			
< 75m Cover	**Predicted**	**Final Measured**	**Comment**
Subsidence	1.21 - 1.32m	1.215m	Measured subsidence < predictions
Tensile Strain	14 mm/m	8 mm/m	Measured tensile strains < predictions
Compressive Strain	17 - 18 mm/m	21 mm/m	Measured compressive strains < predictions with 1 minor exceedance
Tilt	39 - 41 mm/m	89.6 mm/m	Measured tilts < predictions with 1 minor exceedance
Other			
>75m Cover	**Predicted**	**Final Measured**	**Comment**
Subsidence	1.32 - 1.42m	1.066 m	Measured subsidence < predictions
Tensile Strain	11 - 14mm/m	9 mm/m	Measured tensile strains < predictions
Compressive Strain	14 - 17 mm/m	7 mm/m	Measured compressive strains < predictions
Tilt	38 - 41 mm/m	30 mm/m	Measured tilts < predictions
Other			

PANEL 7 (W= 160.5 m; T = 2.5 m)			
< 75m Cover	**Predicted**	**Final Measured**	**Comment**
Subsidence	1.27 - 1.32m	0.731m	Measured subsidence < predictions
Tensile Strain	11 - 14 mm/m	4 mm/m	Measured tensile strains < predictions
Compressive Strain	14 - 18 mm/m	2 mm/m	Measured compressive strains < predictions
Tilt	41 mm/m	4 mm/m	Measured tilts < predictions
Other			
>75m Cover	**Predicted**	**Final Measured**	**Comment**
Subsidence	1.32 - 1.43m	1.312 m	Measured subsidence < predictions
Tensile Strain	11 - 15mm/m	22 mm/m	Measured tensile strains < predictions with 1 minor exceedance
Compressive Strain	14 - 18 mm/m	35 mm/m	Measured compressive strains < predictions with 1 minor exceedance
Tilt	41 mm/m	19.1 mm/m	Measured tilts < predictions
Other			

PANEL 8 (W= 160.5 m; T = 2.5 m)			
< 75m Cover	**Predicted**	**Final Measured**	**Comment**
Subsidence	< 1.32m	0.828m	Measured subsidence < predictions
Tensile Strain	14 - 15 mm/m	2 mm/m	Measured tensile strains < predictions
Compressive Strain	17 - 19 mm/m	3 mm/m	Measured compressive strains < predictions
Tilt	42 mm/m	11.4 mm/m	Measured tilts < predictions
Other			
>75m Cover	**Predicted**	**Final Measured**	**Comment**
Subsidence	1.25 - 1.32m	0.835 m	Measured subsidence < predictions
Tensile Strain	10 - 14mm/m	11 mm/m	Measured tensile strains < predictions with 1 minor exceedance
Compressive Strain	13 - 17 mm/m	6 mm/m	Measured compressive strains < predictions with 1 minor exceedance
Tilt	41 mm/m	33.8 mm/m	Measured tilts < predictions
Other			

PANEL 15 (W= 160.5 m; T = 2.5 m)			
>75m Cover	**Predicted**	**Final Measured**	**Comment**
Subsidence	1.17 - 1.23m	1.125m	Measured subsidence < predictions
Tensile Strain	7 - 12mm/m	14 mm/m	Measured tensile strains < predictions
Compressive Strain	9 - 15 mm/m	12 mm/m	Measured compressive strains < predictions
Tilt	19 - 32 mm/m	47 mm/m	Measured tilts < predictions with 2 minor exceedance
Other			

TAILGATE HEADINGS (W= 80.5 m; T = 2.8 m)			
<110mCover	**Predicted**	**Final Measured**	**Comment**
Subsidence	0.88 – 0.99m	0.240m	Measured subsidence < predictions
Tensile Strain	8 - 9mm/m	5 mm/m	Measured tensile strains < predictions
Compressive Strain	8 - 9 mm/m	1 mm/m	Measured compressive strains < predictions
Tilt	18 - 33 mm/m	7 mm/m	Measured tilts < predictions
Other			

7 PHOTOGRAPHIC MONITORING AND VISUAL INSPECTION SUMMARY AND ANALYSIS

Dates of photographic monitoring and visual inspections are shown in **Table 5.** No impacts or changes have been noted in either photographic monitoring or visual inspections and these results have been detailed in the Subsidence Management Status Reports submitted in January, May and September 2012 and January 2013.

No evidence of impacts has been observed or noted during these inspections and monitoring.

Comparison of pre and post mining photographic monitoring did not reveal any evidence of impact.

Table 5 – Surface Inspection and Photographic Monitoring Dates

Monitoring / Inspection	Monitoring / Inspection Description	Pre Mining Inspections / Monitoring	Mining Period Inspections / Monitoring	Post Mining Inspections / Monitoring
Panel 6				
General Surface	Visual inspection	14/09/2011	Weekly	1/05/2012
Roads / tracks	Visual inspection	14/09/2011	Weekly in active zone	1/05/2012
	Photographic monitoring	14/09/2011	-	
Panel 7				
General surface	Visual inspection	8/02/2012	Weekly	2/08/2012
Roads / tracks	Visual inspection	8/02/2012	Weekly in active zone	2/08/2012
	Photographic monitoring	8/02/2012	-	
Panel 8				
General surface–	Visual inspection	13/02/2012	Weekly	31/10/2012
Roads / tracks	Visual inspection	13/02/2012	Weekly in active zone	31/10/2012
	Photographic monitoring	13/02/2012	-	
Panel 15				
General surface–	Visual inspection	9/02/2012	Weekly	27/04/2012
Roads / tracks	Visual inspection	9/02/2012	Weekly in active zone	27/04/2012
	Photographic monitoring	9/02/2012	-	

Monitoring / Inspection	Monitoring / Inspection Description	Pre Mining Inspections / Monitoring	Mining Period Inspections / Monitoring	Post Mining Inspections / Monitoring
Panel 20				
General surface–	Visual inspection	29/08/2012	Weekly	
Roads / tracks	Visual inspection	29/08/2012	Weekly in active zone	
	Photographic monitoring	29/08/2012	-	
Panel 21				
General surface–	Visual inspection	7/11/2012	Weekly	
Roads / tracks	Visual inspection	7/11/2012	Weekly in active zone	
	Photographic monitoring	7/11/2012	-	
East Install Headings				
General surface–	Visual inspection	14/11/2012	Weekly	
Roads / tracks	Visual inspection	14/11/2012	Weekly in active zone	
	Photographic monitoring	14/11/2012	-	
Tailgate Headings				
General surface–	Visual inspection	18/05/2012	Weekly	19/12/2012
Roads / tracks	Visual inspection	18/05/2012	Weekly in active zone	19/12/2012
	Photographic monitoring	18/05/2012	-	
East Mains Headings				
General surface–	Visual inspection	9/07/2012	Weekly	
Roads / tracks	Visual inspection	9/07/2012	Weekly in active zone	
	Photographic monitoring	9/07/2012	-	

8 ENVIRONMENTAL MONITORING SUMMARY AND ANALYSIS

Groundwater

Monthly monitoring of regional groundwater levels and quality was undertaken throughout the year in accordance with the Site Water Management Plan and Integrated Monitoring Plan.

A summary of groundwater and surface water quality is provided in **Tables 6** and **7.**

Table 6 – Summary of Groundwater Quality Monitoring Results

Sampling Site	pH	EC (µS/cm)	TSS (mg/L)
6	7.04 – 7.29	662 - 3320	35 - 6400
7	7.04 – 7.55	1190 - 2820	40 – 240
12	6.12 – 7.42	452 - 9120	22 – 161
13	7.03 – 7.48	3710 - 12400	14 - 108
JRD1	8.05 – 8.63	4120 - 4730	8 – 57
JRD2	6.57 – 8.06	256 - 506	18 - 118

Table 7 – Summary of Surface Water Quality Monitoring Results

Sampling Site	pH	EC (µS/cm)	Turbidity (NTU)	TSS (mg/L)
1	6.96 – 7.29	388 - 1760	9.4 -94.9	<5 - 44
8	7.30 – 7.64	296 – 841	16.5 – 59.2	<5 - 174
9	Not Sampled			
10	7.36 – 7.67	618 - 1750	6.8 – 1750	9 – 106
11	7.1 – 7.67	393 – 2550	21.5 – 140	8 - 108
FMCU	6.89 – 7.40	199 - 624	16.1 – 42.1	6 – 40
FMCD	6.96 – 7.69	142 - 253	4.6 - 193	5 - 228

9 TRENDS IN MONITORING RESULTS

As noted previously monitoring results in subsidence and environmental areas displayed no discernable trends, nor major variances to previous years.

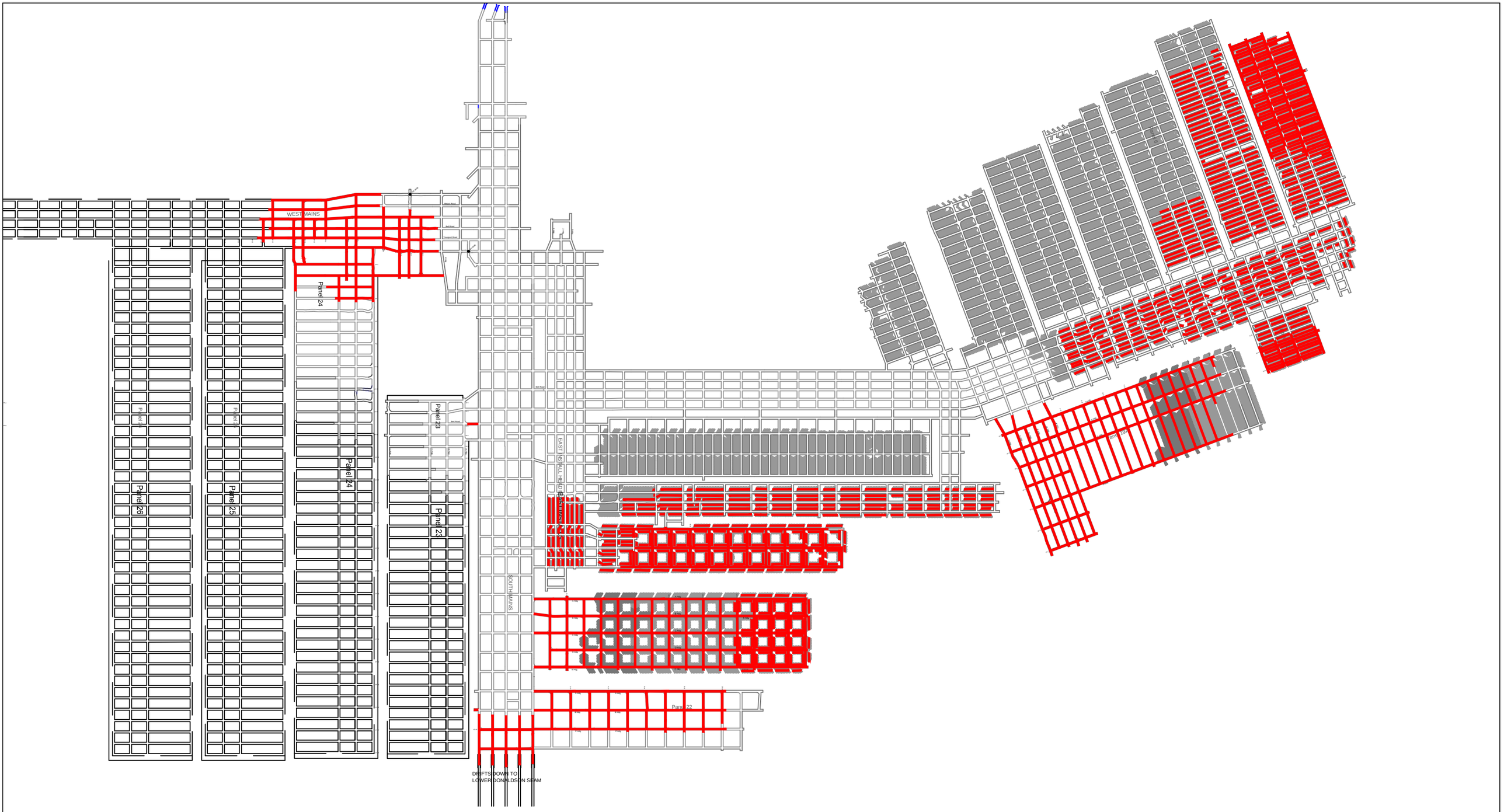
Routine and scheduled monitoring will continue as outlined in the various monitoring and management programs.

10 MANAGEMENT ACTIONS

Actions taken to ensure adequate management of any potential subsidence impacts due to mining include:

- Various monitoring programs, subsidence surveys, visual inspections, photographic monitoring to detect any impact;

- TARPs (Trigger, Action, Response Plans) forming part of approved Public Safety Management Plans and Environmental Monitoring Programs which include mitigation/remediation options and notification procedures relating to subsidence monitoring, surface cracking on both roads / fire trails and vegetated areas and impacts on rock mass / steep slopes and Aboriginal sites.



AREAS MINED DURING 2012

DONALDSONCOAL

Part of the Yancoal Australia Group

ABEL MINE
2012

SCALE : N.T.S.	DWG No. : a6p0131.dwg
DRAWN : M. Wright	REVISION :